

REMARKS

This paper is filed in response to the Office Action mailed May 22, 2006.

Following the amendments above, claims 2, 5-8, 12-15, 17-23, 25, 27-29, 33, 34, 36-40, 42-49, 51-56, 58-70, 72-76, 78-82, 84-90, 92-96, 98-100, and 101 are pending. Claims 2, 12, 13, 17-21, 36-40, 49, 51, 52, and 75 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,299,810 to Pierce et al (hereinafter referred to as "Pierce"). Claim 27 is rejected under 35 U.S.C. § 102(b) as being anticipated by an article entitled "Tele-Virtual Reality of Dynamic Mechanical Model" authored by Yamakita, and published in the Proceedings of the 1992 IEEE.RSJ International Conference on Intelligent Robots and Systems (hereinafter referred to as "Yamakita"). Claim 22 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of the knowledge of one of ordinary skill in the art. Claims 3-5, 7, 11, 23, 28, 29, 31, 41-48, 53-56, 58-70, 72-74, 76, and 78-82 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Yamakita. Claims 6, 8, 14-15, 25, 33-34, and 89 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of an article entitled "A Low-Cost Force Feedback Joystick and its Use in PC Video Games" authored by Ming Ouhyoung et al, and published in the IEEE Transactions on Consumer Electronics, Vol. 41, No. 3, Aug. 1995 (hereinafter referred to as "Ouhyoung"). Claims 84-88, 90, and 92-100 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Yamakita, and further in view of Ouhyoung.

Applicant has amended claims 27, 89, 92, 93, 95, 96, and 98; cancelled claim 97; and added new claim 101. No new matter is added by these amendments, and support for the amendments may be found in the specification and claims as originally filed.

Reconsideration and allowance of all claims are respectfully requested in view of the amendments above and the remarks below.

Claims 3, 4, 11, 31, and 41

Claims 3, 4, 11, 31, and 41 were cancelled in the previous amendment, and therefore the rejection of those claims is rendered moot. Applicant respectfully requests the Examiner withdraw the rejection of those claims.

Claim 2 – § 102(b) – Pierce

Applicant respectfully traverses the rejection of Claim 2 under 35 U.S.C. § 102(b) as being anticipated by Pierce.

To anticipate a claim under 35 U.S.C. § 102(b), a reference must disclose each and every element of the claim. *See* M.P.E.P. § 2131.

Because Pierce does not disclose “wherein said first computer produces said first image and said haptic feedback signal based at least in part on information received from a second computer and based at least in part on said first computer input” as recited in claim 2, Pierce does not anticipate claim 2. Pierce discloses that the generation of haptic signal in a first computer based on position data of an opponent’s projectile read from a shared memory area, not based on the motion of the first computer’s controller. Further, the first computer does not receive data from the second computer. The first computer merely reads a memory location; data is not transmitted to the first computer, nor is data received from the second computer. Thus, Pierce does not disclose each and every element of claim 2. Applicant respectfully requests the Examiner withdraw the rejection of claim 2.

Claims 5, 7, 44-48 – § 103(a) – Pierce in view of Yamakita

Applicant respectfully traverses the rejection of claims 5, 7, 44-48 under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Yamakita.

To sustain a rejection of a claim under 35 U.S.C. § 103(a), the combined references must teach or suggest each and every element of the claim. *See* M.P.E.P. § 2142.

Because the combination of Pierce and Yamakita does not teach or suggest “wherein said first computer produces said first image and said haptic feedback signal based at least in part on information received from a second computer and based at least in part on said first computer input,” as recited in claim 2, from which claims 5, 7, 44-48 depend, claims 5, 7, 44-48 are patentable over the combination of Pierce and Yamakita. As discussed above, Pierce does not teach “wherein said first computer produces said first image and said haptic feedback signal based at least in part on information received from a second computer and based at least in part on said first computer input.” Yamakita does not cure this deficiency.

Yamakita teaches a first manipulandum receiving haptic information from a server computer. The position of the first manipulandum, however, is not used to calculate the haptic force on the first manipulandum. Further, Yamakita does not teach that data from the second computer is received by the first computer. The first computer only receives data from the server computer. The data received from the server computer does not comprise data received from the second computer. Thus, the combination of Pierce and Yamakita does not teach or suggest each and every element of claim 2. Because claims 5, 7, 44-48 depend from and further limit claim 2, Applicant respectfully requests the Examiner withdraw the rejection of claims 5, 7, 44-48.

Claims 6 and 8 – § 103(a) – Pierce in view of Ouhyoung and Kelley

The rejection of claims 6 and 8 under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Ouhyoung and Kelley is respectfully traversed.

To sustain a rejection of a claim under 35 U.S.C. § 103(a), the combined references must teach or suggest each and every element of the claim. *See* M.P.E.P. § 2142.

Because the combination of Pierce, Ouhyoung, and Kelley does not teach or suggest “wherein said first computer produces said first image and said haptic feedback signal based at least in part on information received from a second computer and based at least in part on said first computer input” as recited in claim 2, from which claims 6 and 8 depend, claims 6 and 8 are patentable over the combined references. As discussed above, Pierce does not teach or suggest “wherein said first computer produces said first image and said haptic feedback signal based at least in part on information received from a second computer and based at least in part on said first computer input.” Ouhyoung and Kelley do not cure this deficiency.

Neither Ouhyoung nor Kelley teach receiving data at a first computer from a second computer. Ouhyoung teaches a force-feedback joystick for use with a computer, but does not teach receiving data from a second computer. Kelley teaches a haptic interface device, but does not teach receiving data from a second computer. Therefore, the combination of Pierce, Ouhyoung, and Kelley does not teach or suggest “wherein said first computer produces said first image and said haptic feedback signal based at least in part on information received from a second computer and based at least in part on said first computer input.” As such, claims 6 and 8

are patentable over the combination of Pierce, Ohyoung, and Kelley. Applicant respectfully requests the Examiner withdraw the rejection of claims 6 and 8.

Claims 17-21, 51, and 52 – § 102(b) – Pierce

Applicant respectfully traverses the rejection of claims 17-21, 51, and 52 under 35 U.S.C. § 102(b) as being anticipated by Pierce.

To anticipate a claim under 35 U.S.C. § 102(b), a reference must disclose each and every element of the claim. *See* M.P.E.P. § 2131.

Because Pierce does not disclose “causing a tactile sensation signal to be provided to said haptic feedback device from said second computer, said tactile sensation signal being based, at least in part, on said first computer information and said input information” as recited in claim 17, Pierce does not anticipate claim 17. Pierce discloses a system wherein haptic forces are based upon the location and orientation of projectiles, not input information from a controller. As such, Pierce does not disclose each and every element of claim 17. Applicant respectfully requests the Examiner withdraw the rejections of claim 17.

Because claims 18-21, 51, and 52 depend from and further limit claim 17, claims 18-21, 51, and 52 are not anticipated by Pierce for at least the same reason as claim 17. Therefore, Applicant respectfully requests the Examiner withdraw the rejection of claims 18-21, 51, and 52.

Claim 22 – § 103(a) – Pierce

Applicant respectfully traverses the rejection of claim 22 under 35 U.S.C. § 103(a) as being unpatentable over Pierce.

To sustain a rejection of a claim under 35 U.S.C. § 103(a), the combined references must teach or suggest each and every element of the claim. *See* M.P.E.P. § 2142.

As discussed above, Pierce does not teach “causing a tactile sensation signal to be provided to said haptic feedback device from said second computer, said tactile sensation signal being based, at least in part, on said first computer information and said input information” as recited in claim 17, the claim from which claim 22 depends. The Examiner noted that one of ordinary skill in the art would know that paddles could be a graphical object. However, assuming one of ordinary skill in the art would possess such knowledge, this knowledge does not

teach or suggest “causing a tactile sensation signal to be provided to said haptic feedback device from said second computer, said tactile sensation signal being based, at least in part, on said first computer information and said input information.” Thus, the combination of Pierce and the asserted knowledge of one of ordinary skill in the art do not render claim 22 obvious. Applicant respectfully requests the Examiner withdraw the rejection of claim 22.

Claims 23 and 53-56 – § 103(a) – Pierce in view of Yamakita

Applicant respectfully traverses the rejection of claims 23 and 53-56 under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Yamakita.

To sustain a rejection of a claim under 35 U.S.C. § 103(a), the combined references must teach or suggest each and every element of the claim. *See* M.P.E.P. § 2142.

Because the combination of Pierce and Yamakita does not teach or suggest “causing a tactile sensation signal to be provided to said haptic feedback device from said second computer, said tactile sensation signal being based, at least in part, on said first computer information and said input information” as recited in claim 17, from which claims 23 and 53-56 depend, claims 23 and 53-56 are patentable over the combination of Pierce and Yamakita. As discussed above, Pierce does not teach “causing a tactile sensation signal to be provided to said haptic feedback device from said second computer, said tactile sensation signal being based, at least in part, on said first computer information and said input information.” Yamakita does not cure this deficiency.

Yamakita teaches that haptic effects are generated based on the velocity of the opponent’s manipulandum and a model of a rope, but does not teach where the haptic effect is based on input from the user’s own manipulandum. As such, the combination of Pierce and Yamakita does not teach or suggest “causing a tactile sensation signal to be provided to said haptic feedback device from said second computer, said tactile sensation signal being based, at least in part, on said first computer information and said input information,” as recited in claim 17. Therefore, claim 17 is patentable over Pierce in view of Yamakita. Because claims 23 and 53-56 depend from and further limit claim 17, claims 23 and 53-56 are patentable over Pierce in view of Yamakita for at least the same reason. Applicant respectfully requests the Examiner withdraw the rejection of claims 23 and 53-56.

Claim 25 – § 103(a) – Pierce in view of Ouhyoung and Kelley

Applicant respectfully traverses the rejection of claim 25 under 35 U.S.C. § 103(a) as being unpatentable over Ouhyoung and Kelley.

To sustain a rejection of a claim under 35 U.S.C. § 103(a), the combined references must teach or suggest each and every element of the claim. *See* M.P.E.P. § 2142.

Because the combination of Pierce, Ouhyoung, and Kelley does not teach or suggest “causing a tactile sensation signal to be provided to said haptic feedback device from said second computer, said tactile sensation signal being based, at least in part, on said first computer information and said input information” as recited in claim 17, from which claim 25 depends, claim 25 is patentable over Pierce in view of Ouhyoung and Kelley. As discussed above, Pierce does not teach “causing a tactile sensation signal to be provided to said haptic feedback device from said second computer, said tactile sensation signal being based, at least in part, on said first computer information and said input information.” Ouhyoung and Kelley do not cure this deficiency.

Neither Ouhyoung nor Kelley discuss the use of two computers networked together to provide a haptic effect to a device. Thus, neither Ouhyoung nor Kelley teach or suggest teach “causing a tactile sensation signal to be provided to said haptic feedback device from said second computer, said tactile sensation signal being based, at least in part, on said first computer information and said input information.” As such, the combination of Pierce, Ouhyoung and Kelley do not teach or suggest each and every element of claim 17. Therefore, because claim 25 depend from and further limits claim 17, claim 25 is patentable over the combined references for at least the same reason. Applicant respectfully requests the Examiner withdraw the rejection of claim 25.

Claims 12, 13, and 49 – 102(b) – Pierce

Applicant respectfully traverses the rejection of claims 12, 13, and 49 under 35 U.S.C. § 102(b) as being anticipated by Pierce.

To anticipate a claim under 35 U.S.C. § 102(b), a reference must disclose each and every element of the claim. *See* M.P.E.P. § 2131.

Because Pierce does not disclose “said second computer means further comprising means for interpreting said information repeatedly received from said first computer means over said network means” as recited in claim 12, Pierce does not anticipate claim 12. Pierce teaches a second computer reading data values from a shared memory; however, Pierce does not teach a second computer receiving data from a first computer over a network. Thus, Pierce does not anticipate claim 12. Applicant respectfully requests the Examiner withdraw the rejection of claim 12.

Because claims 13 and 49 depend from and further limits claim 12, claims 13 and 49 are not anticipated by Pierce for at least the same reason. Applicant respectfully requests the Examiner withdraw the rejection of claims 13 and 49.

Claims 14 and 15 – § 103(a) Pierce in view of Ouhyoung and Kelley

Applicant respectfully traverses the rejection of claims 14 and 15 under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Ouhyoung and Kelley.

To sustain a rejection of a claim under 35 U.S.C. § 103(a), the combined references must teach or suggest each and every element of the claim. *See* M.P.E.P. § 2142.

Because Pierce in view of Ouhyoung and Kelley does not teach or suggest “said second computer means further comprising means for interpreting said information repeatedly received from said first computer means over said network means” as recited in claim 12, from which claims 14 and 15 depend, claims 14 and 15 are patentable over Pierce in view of Ouhyoung and Kelley. As discussed above, Pierce does not teach “said second computer means further comprising means for interpreting said information repeatedly received from said first computer means over said network means.” Ouhyoung and Kelley do not cure this deficiency. Neither Ouhyoung nor Kelley teach or suggest two computers networked together to provide haptic feedback. Thus, the combination of Pierce, Ouhyoung, and Kelley do not teach or suggest “said second computer means further comprising means for interpreting said information repeatedly received from said first computer means over said network means.” Therefore, claims 14 and 15 are patentable over the combined references. Applicant respectfully requests the Examiner withdraw the rejection of claims 14 and 15.

Claim 27 – § 102(b) – Yamakita

Applicant respectfully traverses the rejection of claim 27 under 35 U.S.C. § 102(b) as being anticipated by Yamakita.

To anticipate a claim under 35 U.S.C. § 102(b), a reference must disclose each and every element of the claim. *See* M.P.E.P. § 2131.

Because Yamakita does not disclose “enabling first information comprising an indication of movement of a first manipulandum coupled to a first computer and first feel sensation information indicating a type of force sensation to be output by said first computer over said computer network” as recited in amended claim 27, Yamakita does not anticipate claim 27. Yamakita discloses a system involving two devices and a third device, the model device. The model device is responsible for modeling the object being manipulated by the other two devices. As such, the model device determines the forces output by the model. Consequently, the two devices engaged by the users do not transmit any force information. Thus, Yamakita does not disclose “enabling first information comprising an indication of movement of a first manipulandum coupled to a first computer and first feel sensation information indicating a type of force sensation to be output by said first computer over said computer network” as recited in claim 27. Applicant respectfully requests the Examiner withdraw the rejection of claim 27.

Claim 28 and 29 – § 103(a) – Pierce in view of Yamakita

Applicant respectfully traverses the rejection of claims 28 and 29 under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Yamakita.

To sustain a rejection of a claim under 35 U.S.C. § 103(a), the combined references must teach or suggest each and every element of the claim. *See* M.P.E.P. § 2142.

Because the combination of Pierce and Yamakita does not teach or suggest “enabling first information comprising an indication of movement of a first manipulandum coupled to a first computer and first feel sensation information indicating a type of force sensation to be output by said first computer over said computer network” as recited in amended claim 27, from which claims 28 and 29 depend, claims 28 and 29 are patentable over the combination of Pierce and Yamakita. As discussed above, Yamakita does not teach “enabling first information

comprising an indication of movement of a first manipulandum coupled to a first computer and first feel sensation information indicating a type of force sensation to be output by said first computer over said computer network.” Pierce does not cure this deficiency.

The Pierce system does not teach sending force information over a network. Pierce teaches that a computer performs calculations on the location of a projectile in relation to the vehicle controlled by the computer. If the projectile ‘strikes’ the vehicle, the computer generates causes a force to be output on the seat. The force to be output is determined entirely within the computer. No force information is transmitted between the computers – whether a force is to be output is determined locally by each computer. *See* Pierce, col. 8, lines 19-67. Therefore, because the combination of Pierce and Yamakita does not teach or suggest “enabling first information comprising an indication of movement of a first manipulandum coupled to a first computer and first feel sensation information indicating a type of force sensation to be output by said first computer over said computer network,” claims 28 and 29 are patentable over the combined references. Applicant respectfully requests the Examiner withdraw the rejection of claims 28 and 29.

Claims 33 and 34 – § 103(a) – Pierce in view of Ouhyoung and Kelley

Applicant respectfully traverses the rejection of claims 33 and 34 under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Ouhyoung and Kelley.

To sustain a rejection of a claim under 35 U.S.C. § 103(a), the combined references must teach of suggest each and every element of the claim. *See* M.P.E.P. § 2142.

Because Pierce in view of Ouhyoung and Kelley does not teach or suggest “enabling first information comprising an indication of movement of a first manipulandum coupled to a first computer and first feel sensation information indicating a type of force sensation to be output by said first computer over said computer network” as recited in amended claim 27, from which claims 33 and 34 depend, claims 33 and 34 are patentable over the combined references. As discussed above, Pierce does not teach “enabling first information comprising an indication of movement of a first manipulandum coupled to a first computer and first feel sensation information indicating a type of force sensation to be output by said first computer over said computer network” as recited in amended claim 27. Ouhyoung and Kelley do not cure this

deficiency. Neither Ouhyoung nor Kelley teach or suggest using more than one computer connected to a network to pass information relating to force sensations. As such, Pierce in view of Ouhyoung and Kelley does not teach or suggest each and every element of claims 33 and 34. Applicant respectfully requests the Examiner withdraw the rejection of claims 33 and 34.

Claims 36-40 – § 102(b) – Pierce

Applicant respectfully traverses the rejections of claims 36-40 under 35 U.S.C. § 102(b) as being anticipated by Pierce.

To anticipate a claim under 35 U.S.C. § 102(b), a reference must disclose each and every element of the claimed invention. *See* M.P.E.P. § 2131.

Because Pierce does not recite “sending first computer information to said second computer from said first computer over a network, wherein said first computer information comprises position information describing a position of a manipulandum of a first haptic feedback device” as recited in claim 38, claim 38 is not anticipated by Pierce. Pierce discloses storing data relating to the position and orientation of a *vehicle*, not the position of the interface device, in a common RAM. *See* Pierce, col. 7, line 49 to col. 8 line 4. As such, Pierce does not anticipate claim 38. Applicant respectfully requests the Examiner withdraw the rejection of claim 38.

Because claims 36, 37, 39, and 40 depend from and further limit claim 38, claims 36, 37, 39, and 40 are not anticipated by Pierce for at least the same reason. Applicant respectfully requests the Examiner withdraw the rejection of claims 36, 37, 39, and 40.

Claims 42 and 43 – § 103(a) – Pierce in view of Yamakita

Applicant respectfully traverses the rejection of claims 42 and 43 under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Yamakita.

To sustain a rejection of a claim under 35 U.S.C. § 103(a), the combined references must teach or suggest each and every element of the claim. *See* M.P.E.P. § 2142. Further, to sustain a rejection of a claim under 35 U.S.C. § 103(a), there must be a motivation to combine the references. *See* M.P.E.P. § 2143.01

Because the combination of Pierce in view of Yamakita does not teach or suggest “sending first computer information to said second computer from said first computer over a network, wherein said first computer information comprises position information describing a position of a manipulandum of a first haptic feedback device” as recited in claim 38, from which claims 42 and 43 depend, claims 42 and 43 are patentable over the combination of Pierce and Yamakita. As discussed above, Pierce does not teach “sending first computer information to said second computer from said first computer over a network, wherein said first computer information comprises position information describing a position of a manipulandum of a first haptic feedback device.” Yamakita does not cure this deficiency.

Yamakita teaches passing variables over a network, however Yamakita does not teach or suggest sending “information comprises position information describing a position of a manipulandum of a first haptic feedback device” as recited in claim 38. The list of variables transmitted are list in various tables in Yamakita, none of which disclose position information describing the position of a manipulandum. *See* Yamakita, Table 1 (p. 1104), Table 2 (p. 1105), Table 3 (p. 1106). As such, the combined references do not teach or suggest each and every element of claims 42 and 43.

Further, even if Yamakita did teach or suggest using “information compris[ing] position information describing a position of a manipulandum of a first haptic feedback device,” one of ordinary skill in the art would not look to Yamakita for such a teaching. Pierce discloses only saving position information relating to a vehicle, and only using position information describing the position of a manipulandum locally. Pierce discloses nothing that would indicate the desirability of exchanging “information compris[ing] position information describing a position of a manipulandum of a first haptic feedback device.” The position information is only important for determining the qualities related to the position of a vehicle, which is determined locally. Thus, one of ordinary skill in the art would not be motivated to combine Pierce with Yamakita. Therefore, claims 42 and 43 are patentable over the combination of Pierce and Yamakita. Applicant respectfully requests the Examiner withdraw the rejection of claims 42 and 43.

Claim 58-70 – § 103(a) – Pierce in view of Yamakita

Applicant respectfully traverses the rejection of claims 58-70 under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Yamakita.

To sustain a rejection of a claim under 35 U.S.C. § 103(a), there must be a motivation to combine the two references. *See* M.P.E.P. § 2142.

Because it would require a substantial reconstruction and redesign of the system taught in Pierce to incorporate a computer network and server computer as taught in Yamakita, there is no motivation to combine the references. *See* M.P.E.P. 2143.02. The system of Pierce involves two computers accessing data in a shared memory area. To convert the Pierce system to include not only the computer network, but also a third, server computer as taught by Yamakita, all of the software written for Pierce would need to be rewritten to operate in a client-server relationship, rather than a peer-to-peer relationship. Such a change in fundamental architectures would require substantial reconstruction and redesign. Further, the Pierce system would need to be redesigned to incorporate networking interfaces, as well as software to handle network traffic. Thirdly, the Pierce system would need to be redesigned to account for latency in data traffic over a network that would not be present when two computer share a common memory pool as is done in the Pierce system. Memory latencies are typically tens or hundreds of nanoseconds (billionths of a second), whereas network latencies, particularly over significant distances, are tens or hundreds of milliseconds (thousandths of a second). Accommodating a million-fold (or more) increase in data latency would require substantial redesign. Because modifying Pierce to incorporate Yamakita would require substantial reconstruction and redesign of Pierce, it would not be obvious to one of ordinary skill in the art to combine the references. Thus, claim 58 is patentable over the combination of Pierce and Yamakita. Applicant respectfully requests the Examiner withdraw the rejection of claim 58.

Because claims 59-70 depend from and further limit claim 58, claims 59-70 are patentable over the combined references for at least the same reason. Applicant respectfully requests the Examiner withdraw the rejection of claims 59-70.

Claim 75 – § 102(b) – Pierce

Applicant respectfully traverses the rejection of claim 75 under 35 U.S.C. § 102(b) as being anticipated by Pierce.

To anticipate a claim under 35 U.S.C. § 102(b), a reference must disclose each and every element of the claim. *See* M.P.E.P. § 2131.

Because Pierce does not disclose “receiving first information at a first computer from a second computer over a network, said information comprising haptic feedback information and position information for a graphical object displayed by said second computer” as recited in claim 75, Pierce does not anticipate claim 75. Pierce discloses that a haptic feedback is determined locally by the computer outputting the feedback. *See* Pierce, col. 8, lines 19-67. In other words, the opposing computer does not send any force feedback information. As such, Pierce does not disclose each and every element of claim 75. Applicant respectfully requests the Examiner withdraw the rejection of claim 75.

Claims 72-74, 76, and 78-82 – § 103(a) – Pierce in view of Yamakita

Applicant respectfully traverses the rejection of claims 72-74, 76, and 78-82 under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Yamakita.

To sustain a rejection of a claim under 35 U.S.C. § 103(a), the combined references must teach or suggest each and every element of the claim. *See* M.P.E.P. § 2142.

Because the combination of Pierce and Yamakita does not teach or suggest “receiving first information at a first computer from a second computer over a network, said information comprising haptic feedback information and position information for a graphical object displayed by said second computer” as recited in claim 75, from which claims 72-74, 76, and 78-82 depend, claims 72-74, 76, and 78-82 are patentable over the combination of Pierce and Yamakita. As discussed above, Pierce does not teach each and every element of claim 75. Yamakita does not cure this deficiency.

Yamakita teaches a three separate systems networked together: two manipulanda networked to a server. Yamakita teaches that the central server transmits force information to a first device, however, it does not teach that the central server transmits position data to the first

device. Further, Yamakita teaches that a second device transmits neither position data nor force data to a first device. Thus, the combination of Pierce and Yamakita does not teach or suggest “receiving first information at a first computer from a second computer over a network, said information comprising haptic feedback information and position information for a graphical object displayed by said second computer” as recited in claim 75. Thus, claims 72-74, 76, and 78-82 are patentable over the combination of Pierce and Yamakita. Applicant respectfully requests the Examiner withdraw the rejections of claims 72-74, 76, and 78-82.

Claim 89 – § 103(a) – Pierce in view of Ouhyoung and Kelley

Applicant respectfully traverses the rejection of claim 89 under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Ouhyoung and Kelley.

To sustain a rejection of a claim under 35 U.S.C. § 103(a), the combined references must teach or suggest each and every element of the claim. *See* M.P.E.P. § 2142.

Because the combination of Pierce in view of Ouhyoung and Kelley does not teach or suggest “wherein said haptic feedback data and a state of said displayed second graphical object are derived using said information received by said first computer from a second computer in communication with said network and said position data” as recited in claim 89, claim 89 is patentable over the combined references. Pierce teaches a system wherein a first computer reads information from a shared memory area in order to determine haptic effects, however, Pierce does not teach a system wherein a first computer receives data from a network that was transmitted by a second computer, nor does Pierce teach wherein a haptic effect is based upon the position of a manipulandum. Neither Ouhyoung nor Kelley teach or suggest a first and second computer connected by a network to pass information. Thus the combination of Pierce in view of Ouhyoung and Kelley does not teach or suggest “wherein said haptic feedback data and a state of said displayed second graphical object are derived using said information received by said first computer from a second computer in communication with said network” as recited in claim 89. Applicant respectfully requests the Examiner withdraw the rejection of claim 89.

Claims 84-88 and 90 – § 103(a) – Pierce in view of Yamakita, Ouhyoung, and Kelley

Applicant respectfully traverses the rejection of claims 84-88 and 90 under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Yamakita, Ouhyoung, and Kelley.

To sustain a rejection of a claim under 35 U.S.C. § 103(a), the combined references must teach or suggest each and every element of the claim. *See* M.P.E.P. § 2142.

Because the combination of in view of Yamakita, Ouhyoung, and Kelley does not teach or suggest “wherein said haptic feedback data and a state of said displayed second graphical object are derived using said information received by said first computer from a second computer in communication with said network and said position data” as recited in claim 89, from which claims 84-88 and 90 depend, claims 84-88 and 90 are patentable over the combined references. As discussed above, Pierce in view of Ouhyoung and Kelley does not teach or suggest “wherein said haptic feedback data and a state of said displayed second graphical object are derived using said information received by said first computer from a second computer in communication with said network.” Yamakita does not cure this deficiency.

Yamakita does not teach wherein a haptic effect output on a manipulandum is based at least in part on position data relating to the position of that manipulandum. Yamakita teaches outputting a haptic effect to a first manipulandum based upon the modeled response of a rope responding to the movement of a second manipulandum, not based upon the position of the first manipulandum. Thus, the combination of Pierce in view of Yamakita, Ouhyoung, and Kelley do not teach or suggest each and every element of claims 84-88 and 90. Applicant respectfully requests the Examiner withdraw the rejection of claims 84-88 and 90.

Claims 92-100 – § 103(a) – Pierce in view of Yamakita, Ouhyoung, and Kelley

Applicant has cancelled claim 97 in favor of new claim 101. Claims 92-96 and 98-100 have been amended to depend from new claim 101. As such, the rejections of claims 92-100 are rendered moot. Applicant asserts that new claim 101 is patentable over the cited references, and Applicant respectfully requests allowance of claim 101, as well as its dependent claims.

CONCLUSION

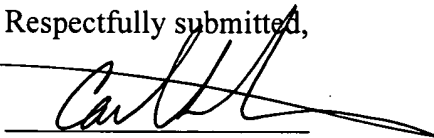
Applicant respectfully asserts that in view of the amendments and remarks above, all pending claims are allowable and Applicant respectfully requests the allowance of all claims.

Should the Examiner have any comments, questions, or suggestions of a nature necessary to expedite the prosecution of the application, or to place the case in condition for allowance, the Examiner is courteously requested to telephone the undersigned at the number listed below.

Date:

8/22/2006

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Carl Sanders', is written over a horizontal line.

Carl Sanders
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